

OFFICE BUILDING RENOVATION ASHRAE HEADQUARTERS ATLANTA, GEORGIA

KEY PARAMETERS

- Type of Facility – Existing (EB)
- Function – Office Building
- Area – 33,570sf 2-story offices
- Project Completed – 2008
- LEED Platinum

Challenge: Sustainable design demonstrating the very latest state-of-the-art heating, ventilation, air conditioning, and refrigeration technology. The first objective was to provide a healthy and productive workplace for staff. The second objective was to create a living laboratory where ASHRAE members could learn about how buildings truly operate.



Solution: Dynamic V8 Air Cleaning Systems were installed in filter boxes throughout the building in plenum returns to allow servicing from the upstream side, and inside a Trane outside air unit. Real-time static pressure readings are monitored via the Automated Logic building control system.



Results: The renovated facility incorporates a number of sustainable features: ground-source heat pumps, variable refrigerant flow systems with heat recovery, and a dedicated outdoor air supply with energy recovery and humidity control provide considerable energy savings. Compared with the old building,

ASHRAE now uses less energy on a larger building with longer operating hours.

Indoor air quality was a major point of emphasis. The indoor air is consistently over 50% cleaner than outdoor air in terms of particles (PM 2.5 and PM10) and gas phase contaminants (TVOCs) according to the Aircuity OptiNet air quality monitors.

The replacement media dust holding capacity has been so high that the system has run at constantly-monitored, low static pressures and the initial media has not required service or replacement, in over five years.

TEAM

- Owner – American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)
- Architect - Richard Wittschiede Hand
- Engineer - Johnson, Spellman & Associates, Inc.
- Mechanical Contractor - Batchelor & Kimball
- General Contractor - Gay Construction
- Project Manager - Bill Harrison
- Commissioning - CxGBS
- LEED Consultant - Mike Snyder

MECHANICAL SYSTEMS

- HVAC – ClimateMaster, Daikin, Trane
- Ventilation – Trane
- Building Controls – Automated Logic
- Energy Monitoring – Daikin, Automated Logic
- IEQ Monitoring – Aircuity

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